

In the Claims

1-39 (canceled).

40 (new). A composition of matter comprising:

- a) an isolated polypeptide selected from the group consisting of:
  - i) a protein comprising an amino acid sequence of rsChBP-1 (SEQ ID NO: 4);
  - ii) a protein comprising an amino acid sequence of mature rsChBP-1 (SEQ ID NO: 6);
  - iii) a protein encoded by a nucleic acid molecule capable of hybridization to a nucleic acid sequence encoding a protein comprising SEQ ID NO: 4 or 6, under stringent conditions, said nucleic acid molecule encoding a protein that binds a CC-chemokine;
  - iv) a protein that binds a CC-chemokine and is at least about 70% identical in amino acid sequence to: a protein comprising an amino acid sequence of rsChBP-1 (SEQ ID NO: 4); a protein comprising an amino acid sequence of mature rsChBP-1 (SEQ ID NO: 6); or a protein encoded by a nucleic acid molecule capable of hybridization to a nucleic acid sequence encoding a protein comprising SEQ ID NO: 4 or 6, under stringent conditions;
  - v) a fragment of a protein of i), ii), iii), or iv), said fragment binding a CC-chemokine;
  - vi) a fragment of a protein of i), ii), iii), or iv), said fragment having an immunomodulatory activity;
  - vii) a fragment of a protein of comprising SEQ ID NO: 4 or 6, said fragment having an immunizing activity when administered to a mammal;

- viii) an active mutant of a protein comprising SEQ ID NO: 4 or 6, in which mutant one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine;
- ix) a fusion protein comprising one or more amino acid sequences chosen from: an extracellular domain of a membrane-bound protein, an immunoglobulin constant region, a multimerization domain, a heterodimeric protein hormone, a signal peptide, an export signal, or a tag sequence operably linked to: a polypeptide comprising SEQ ID NO: 4 or SEQ ID NO: 6; a fragment of SEQ ID NO: 4 or 6 that binds a CC chemokine; a fragment of a protein of comprising SEQ ID NO: 4 or 6, said fragment having an immunizing activity when administered to a mammal; or an active mutant of a protein comprising SEQ ID NO: 4 or 6, in which mutant one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine; and
- x) an active mutant of SEQ ID NO: 4 or 6 in which one or more one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine, wherein the amino acid addition(s), deletion(s), or substitution(s) reduce the immunogenicity of said polypeptide when administered to a mammal;

b) an isolated polynucleotide encoding:

- A) encoding an isolated polypeptide selected from the group consisting of:
  - i) a protein comprising an amino acid sequence of rsChBP-1 (SEQ ID NO: 4);
  - ii) a protein comprising an amino acid sequence of mature rsChBP-1 (SEQ ID NO: 6);
  - iii) a protein encoded by a nucleic acid molecule capable of hybridization to a nucleic acid sequence encoding a protein comprising SEQ ID

NO: 4 or 6, under stringent conditions, said nucleic acid molecule encoding a protein that binds a CC-chemokine;

- iv) a protein that binds a CC-chemokine and is at least about 70% identical in amino acid sequence to: a protein comprising an amino acid sequence of rsChBP-1 (SEQ ID NO: 4); a protein comprising an amino acid sequence of mature rsChBP-1 (SEQ ID NO: 6); or a protein encoded by a nucleic acid molecule capable of hybridization to a nucleic acid sequence encoding a protein comprising SEQ ID NO: 4 or 6, under stringent conditions;
- v) a fragment of a protein of i), ii), iii), or iv), said fragment binding a CC-chemokine;
- vi) a fragment of a protein of i), ii), iii), or iv), said fragment having an immunomodulatory activity;
- vii) a fragment of a protein of comprising SEQ ID NO: 4 or 6, said fragment having an immunizing activity when administered to a mammal;
- viii) an active mutant of a protein comprising SEQ ID NO: 4 or 6, in which mutant one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine;
- ix) a fusion protein comprising one or more amino acid sequences chosen from: an extracellular domain of a membrane-bound protein, an immunoglobulin constant region, a multimerization domain, a heterodimeric protein hormone, a signal peptide, an export signal, or a tag sequence operably linked to: a polypeptide comprising SEQ ID NO: 4 or SEQ ID NO: 6; a fragment of SEQ ID NO: 4 or 6 that binds a CC chemokine; a fragment of a protein of comprising SEQ ID NO: 4 or 6, said fragment having an immunizing activity when administered to a mammal; or an active mutant of a protein comprising SEQ ID NO: 4 or 6, in which mutant one or more amino

acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine; and

- x) an active mutant of SEQ ID NO: 4 or 6 in which one or more one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine, wherein the amino acid addition(s), deletion(s), or substitution(s) reduce the immunogenicity of said polypeptide when administered to a mammal;
- B) comprising SEQ ID NO: 3;
- C) comprising SEQ ID NO: 5;
- D) comprising a nucleic acid molecule capable of hybridization to a nucleic acid molecule comprising SEQ ID NO: 3 or 5 under stringent conditions and which encodes a protein that binds a CC-chemokine; or
- E) comprising an oligonucleotide fragment of a nucleic acid according A), B), C), or D), wherein said oligonucleotide is selected from the group consisting of oligonucleotides of at least about 20 nucleotides in length, oligonucleotides of at least about 30 nucleotides in length, and oligonucleotides of at least about 50 nucleotides in length;

c) a cloning or expression vector comprising an isolated polynucleotide encoding:

- A) encoding an isolated polypeptide selected from the group consisting of:
  - i) a protein comprising an amino acid sequence of rsChBP-1 (SEQ ID NO: 4);
  - ii) a protein comprising an amino acid sequence of mature rsChBP-1 (SEQ ID NO: 6);
  - iii) a protein encoded by a nucleic acid molecule capable of hybridization to a nucleic acid sequence encoding a protein comprising SEQ ID NO: 4 or 6, under stringent conditions, said nucleic acid molecule encoding a protein that binds a CC-chemokine;
  - iv) a protein that binds a CC-chemokine and is at least about 70% identical in amino acid sequence to: a protein comprising an amino

acid sequence of rsChBP-1 (SEQ ID NO: 4); a protein comprising an amino acid sequence of mature rsChBP-1 (SEQ ID NO: 6); or a protein encoded by a nucleic acid molecule capable of hybridization to a nucleic acid sequence encoding a protein comprising SEQ ID NO: 4 or 6, under stringent conditions;

- v) a fragment of a protein of i), ii), iii), or iv), said fragment binding a CC-chemokine;
- vi) a fragment of a protein of i), ii), iii), or iv), said fragment having an immunomodulatory activity;
- vii) a fragment of a protein of comprising SEQ ID NO: 4 or 6, said fragment having an immunizing activity when administered to a mammal;
- viii) an active mutant of a protein comprising SEQ ID NO: 4 or 6, in which mutant one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine;
- ix) a fusion protein comprising one or more amino acid sequences chosen from: an extracellular domain of a membrane-bound protein, an immunoglobulin constant region, a multimerization domain, a heterodimeric protein hormone, a signal peptide, an export signal, or a tag sequence operably linked to: a polypeptide comprising SEQ ID NO: 4 or SEQ ID NO: 6; a fragment of SEQ ID NO: 4 or 6 that binds a CC chemokine; a fragment of a protein of comprising SEQ ID NO: 4 or 6, said fragment having an immunizing activity when administered to a mammal; or an active mutant of a protein comprising SEQ ID NO: 4 or 6, in which mutant one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine; and
- x) an active mutant of SEQ ID NO: 4 or 6 in which one or more one or more amino acid residues have been added, deleted, or substituted

and which mutant binds a CC-chemokine, wherein the amino acid addition(s), deletion(s), or substitution(s) reduce the immunogenicity of said polypeptide when administered to a mammal;

- B) comprising SEQ ID NO: 3;
- C) comprising SEQ ID NO: 5;
- D) comprising a nucleic acid molecule capable of hybridization to a nucleic acid molecule comprising SEQ ID NO: 3 or 5 under stringent conditions and which encodes a protein that binds a CC-chemokine; or
- E) comprising an oligonucleotide fragment of a nucleic acid according A), B), C), or D), wherein said oligonucleotide is selected from the group consisting of oligonucleotides of at least about 20 nucleotides in length, oligonucleotides of at least about 30 nucleotides in length, and oligonucleotides of at least about 50 nucleotides in length;

d) host cell transformed or transfected with an expression vector comprising an isolated polynucleotide encoding:

- A) encoding an isolated polypeptide selected from the group consisting of:
  - i) a protein comprising an amino acid sequence of rsChBP-1 (SEQ ID NO: 4);
  - ii) a protein comprising an amino acid sequence of mature rsChBP-1 (SEQ ID NO: 6);
  - iii) a protein encoded by a nucleic acid molecule capable of hybridization to a nucleic acid sequence encoding a protein comprising SEQ ID NO: 4 or 6, under stringent conditions, said nucleic acid molecule encoding a protein that binds a CC-chemokine;
  - iv) a protein that binds a CC-chemokine and is at least about 70% identical in amino acid sequence to: a protein comprising an amino acid sequence of rsChBP-1 (SEQ ID NO: 4); a protein comprising an amino acid sequence of mature rsChBP-1 (SEQ ID NO: 6); or a protein encoded by a nucleic acid molecule capable of hybridization

to a nucleic acid sequence encoding a protein comprising SEQ ID NO: 4 or 6, under stringent conditions;

- v) a fragment of a protein of i), ii), iii), or iv), said fragment binding a CC-chemokine;
- vi) a fragment of a protein of i), ii), iii), or iv), said fragment having an immunomodulatory activity;
- vii) a fragment of a protein of comprising SEQ ID NO: 4 or 6, said fragment having an immunizing activity when administered to a mammal;
- viii) an active mutant of a protein comprising SEQ ID NO: 4 or 6, in which mutant one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine;
- ix) a fusion protein comprising one or more amino acid sequences chosen from: an extracellular domain of a membrane-bound protein, an immunoglobulin constant region, a multimerization domain, a heterodimeric protein hormone, a signal peptide, an export signal, or a tag sequence operably linked to: a polypeptide comprising SEQ ID NO: 4 or SEQ ID NO: 6; a fragment of SEQ ID NO: 4 or 6 that binds a CC chemokine; a fragment of a protein of comprising SEQ ID NO: 4 or 6, said fragment having an immunizing activity when administered to a mammal; or an active mutant of a protein comprising SEQ ID NO: 4 or 6, in which mutant one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine; and
- x) an active mutant of SEQ ID NO: 4 or 6 in which one or more one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine, wherein the amino acid addition(s), deletion(s), or substitution(s) reduce the immunogenicity of said polypeptide when administered to a mammal;

- B) comprising SEQ ID NO: 3;
- C) comprising SEQ ID NO: 5; or
- D) comprising a nucleic acid molecule capable of hybridization to a nucleic acid molecule comprising SEQ ID NO: 3 or 5 under stringent conditions and which encodes a protein that binds a CC-chemokine; or
- e) a host cell that has been genetically modified to produce a protein and which comprises a polynucleotide:
  - A) encoding an isolated polypeptide selected from the group consisting of:
    - i) a protein comprising an amino acid sequence of rsChBP-1 (SEQ ID NO: 4);
    - ii) a protein comprising an amino acid sequence of mature rsChBP-1 (SEQ ID NO: 6);
    - iii) a protein encoded by a nucleic acid molecule capable of hybridization to a nucleic acid sequence encoding a protein comprising SEQ ID NO: 4 or 6, under stringent conditions, said nucleic acid molecule encoding a protein that binds a CC-chemokine;
    - iv) a protein that binds a CC-chemokine and is at least about 70% identical in amino acid sequence to: a protein comprising an amino acid sequence of rsChBP-1 (SEQ ID NO: 4); a protein comprising an amino acid sequence of mature rsChBP-1 (SEQ ID NO: 6); or a protein encoded by a nucleic acid molecule capable of hybridization to a nucleic acid sequence encoding a protein comprising SEQ ID NO: 4 or 6, under stringent conditions;
    - v) a fragment of a protein of i), ii), iii), or iv), said fragment binding a CC-chemokine;
    - vi) a fragment of a protein of i), ii), iii), or iv), said fragment having an immunomodulatory activity;

- vii) a fragment of a protein of comprising SEQ ID NO: 4 or 6, said fragment having an immunizing activity when administered to a mammal;
- viii) an active mutant of a protein comprising SEQ ID NO: 4 or 6, in which mutant one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine;
- ix) a fusion protein comprising one or more amino acid sequences chosen from: an extracellular domain of a membrane-bound protein, an immunoglobulin constant region, a multimerization domain, a heterodimeric protein hormone, a signal peptide, an export signal, or a tag sequence operably linked to: a polypeptide comprising SEQ ID NO: 4 or SEQ ID NO: 6; a fragment of SEQ ID NO: 4 or 6 that binds a CC chemokine; a fragment of a protein of comprising SEQ ID NO: 4 or 6, said fragment having an immunizing activity when administered to a mammal; or an active mutant of a protein comprising SEQ ID NO: 4 or 6, in which mutant one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine; and
- x) an active mutant of SEQ ID NO: 4 or 6 in which one or more one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine, wherein the amino acid addition(s), deletion(s), or substitution(s) reduce the immunogenicity of said polypeptide when administered to a mammal;

B) comprising SEQ ID NO: 3;

C) comprising SEQ ID NO: 5; or

D) comprising a nucleic acid molecule capable of hybridization to a nucleic acid molecule comprising SEQ ID NO: 3 or 5 under stringent conditions and which encodes a protein that binds a CC-chemokine; or

f) a non-human transgenic animal comprising either a polynucleotide or expression vector:

A) encoding an isolated polypeptide selected from the group consisting of:

- i) a protein comprising an amino acid sequence of rsChBP-1 (SEQ ID NO: 4);
- ii) a protein comprising an amino acid sequence of mature rsChBP-1 (SEQ ID NO: 6);
- iii) a protein encoded by a nucleic acid molecule capable of hybridization to a nucleic acid sequence encoding a protein comprising SEQ ID NO: 4 or 6, under stringent conditions, said nucleic acid molecule encoding a protein that binds a CC-chemokine;
- iv) a protein that binds a CC-chemokine and is at least about 70% identical in amino acid sequence to: a protein comprising an amino acid sequence of rsChBP-1 (SEQ ID NO: 4); a protein comprising an amino acid sequence of mature rsChBP-1 (SEQ ID NO: 6); or a protein encoded by a nucleic acid molecule capable of hybridization to a nucleic acid sequence encoding a protein comprising SEQ ID NO: 4 or 6, under stringent conditions;
- v) a fragment of a protein of i), ii), iii), or iv), said fragment binding a CC-chemokine;
- vi) a fragment of a protein of i), ii), iii), or iv), said fragment having an immunomodulatory activity;
- vii) a fragment of a protein comprising SEQ ID NO: 4 or 6, said fragment having an immunizing activity when administered to a mammal;
- viii) an active mutant of a protein comprising SEQ ID NO: 4 or 6, in which mutant one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine;
- ix) a fusion protein comprising one or more amino acid sequences chosen

from: an extracellular domain of a membrane-bound protein, an immunoglobulin constant region, a multimerization domain, a heterodimeric protein hormone, a signal peptide, an export signal, or a tag sequence operably linked to: a polypeptide comprising SEQ ID NO: 4 or SEQ ID NO: 6; a fragment of SEQ ID NO: 4 or 6 that binds a CC chemokine; a fragment of a protein of comprising SEQ ID NO: 4 or 6, said fragment having an immunizing activity when administered to a mammal; or an active mutant of a protein comprising SEQ ID NO: 4 or 6, in which mutant one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine; and

- x) an active mutant of SEQ ID NO: 4 or 6 in which one or more one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine, wherein the amino acid addition(s), deletion(s), or substitution(s) reduce the immunogenicity of said polypeptide when administered to a mammal;
- B) comprising SEQ ID NO: 3;
- C) comprising SEQ ID NO: 5; or
- D) comprising a nucleic acid molecule capable of hybridization to a nucleic acid molecule comprising SEQ ID NO: 3 or 5 under stringent conditions and which encodes a protein that binds a CC-chemokine; or

g) an isolated antibody that binds to a isolated polypeptide selected from the group consisting of:

- i) a protein comprising an amino acid sequence of rsChBP-1 (SEQ ID NO: 4);
- ii) a protein comprising an amino acid sequence of mature rsChBP-1 (SEQ ID NO: 6);
- iii) a protein encoded by a nucleic acid molecule capable of hybridization to a nucleic acid sequence encoding a protein comprising SEQ ID

NO: 4 or 6, under stringent conditions, said nucleic acid molecule encoding a protein that binds a CC-chemokine;

- iv) a protein that binds a CC-chemokine and is at least about 70% identical in amino acid sequence to: a protein comprising an amino acid sequence of rsChBP-1 (SEQ ID NO: 4); a protein comprising an amino acid sequence of mature rsChBP-1 (SEQ ID NO: 6); or a protein encoded by a nucleic acid molecule capable of hybridization to a nucleic acid sequence encoding a protein comprising SEQ ID NO: 4 or 6, under stringent conditions;
- v) a fragment of a protein of i), ii), iii), or iv), said fragment binding a CC-chemokine;
- vi) a fragment of a protein of i), ii), iii), or iv), said fragment having an immunomodulatory activity;
- vii) a fragment of a protein comprising SEQ ID NO: 4 or 6, said fragment having an immunizing activity when administered to a mammal;
- viii) an active mutant of a protein comprising SEQ ID NO: 4 or 6, in which mutant one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine;
- ix) a fusion protein comprising one or more amino acid sequences chosen from: an extracellular domain of a membrane-bound protein, an immunoglobulin constant region, a multimerization domain, a heterodimeric protein hormone, a signal peptide, an export signal, or a tag sequence operably linked to: a polypeptide comprising SEQ ID NO: 4 or SEQ ID NO: 6; a fragment of SEQ ID NO: 4 or 6 that binds a CC chemokine; a fragment of a protein of comprising SEQ ID NO: 4 or 6, said fragment having an immunizing activity when administered to a mammal; or an active mutant of a protein comprising SEQ ID NO: 4 or 6, in which mutant one or more amino

acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine; and

- x) an active mutant of SEQ ID NO: 4 or 6 in which one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine, wherein the amino acid addition(s), deletion(s), or substitution(s) reduce the immunogenicity of said polypeptide when administered to a mammal.

41 (new). The composition of matter according to claim 40, wherein said polypeptide is post-translationally modified.

42 (new). The composition of matter according to claim 41, wherein said polypeptide is glycosylated.

43 (new). The composition of matter according to claim 40, wherein said polypeptide is PEGylated.

44 (new). The composition of matter according to claim 40, wherein said polypeptide is in the form of an active fraction, precursor, salt, derivative, conjugate, or complex.

45 (new). The composition of matter according to claim 40, wherein said CC-chemokine is CCL5 / RANTES, CCL3 / MIP-1 alpha, and/or CCL2 / MCP-1.

46 (new). The composition of matter according to claim 40, wherein said nucleic acid molecule is a cDNA molecule.

47 (new). The composition of matter according to claim 40, wherein said antibody is monoclonal.

48 (new). The composition of matter according to claim 40, wherein said antibody is chimeric, humanized, or a human antibody.

49 (new). The composition of matter according to claim 40, wherein said composition of matter comprises a nucleic acid, said transformed or transfected host cell, said cell, or said polypeptide is and a carrier.

50 (new). The composition of matter according to claim 40, wherein said composition of matter comprises a kit, said kit comprising a detection reagent and a nucleic acid molecule, an oligonucleotide, a polypeptide or an antibody.

51 (new). A process for preparing a polypeptide comprising culturing a transformed or transfected host cell under conditions allowing or promoting expression of a polypeptide, said host cell comprising a polynucleotide:

- A) encoding an isolated polypeptide selected from the group consisting of:
  - i) a protein comprising an amino acid sequence of rsChBP-1 (SEQ ID NO: 4);
  - ii) a protein comprising an amino acid sequence of mature rsChBP-1 (SEQ ID NO: 6);
  - iii) a protein encoded by a nucleic acid molecule capable of hybridization to a nucleic acid sequence encoding a protein comprising SEQ ID NO: 4 or 6, under stringent conditions, said nucleic acid molecule encoding a protein that binds a CC-chemokine;
  - iv) a protein that binds a CC-chemokine and is at least about 70% identical in amino acid sequence to: a protein comprising an amino acid sequence of rsChBP-1 (SEQ ID NO: 4); a protein comprising an amino acid sequence of mature rsChBP-1 (SEQ ID NO: 6); or a protein encoded by a nucleic acid molecule capable of hybridization to a nucleic acid sequence encoding a protein comprising SEQ ID NO: 4 or 6, under stringent conditions;
  - v) a fragment of a protein of i), ii), iii), or iv), said fragment binding a CC-chemokine;

- vi) a fragment of a protein of i), ii), iii), or iv), said fragment having an immunomodulatory activity;
- vii) a fragment of a protein of comprising SEQ ID NO: 4 or 6, said fragment having an immunizing activity when administered to a mammal;
- viii) an active mutant of a protein comprising SEQ ID NO: 4 or 6, in which mutant one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine;
- ix) a fusion protein comprising one or more amino acid sequences chosen from: an extracellular domain of a membrane-bound protein, an immunoglobulin constant region, a multimerization domain, a heterodimeric protein hormone, a signal peptide, an export signal, or a tag sequence operably linked to: a polypeptide comprising SEQ ID NO: 4 or SEQ ID NO: 6; a fragment of SEQ ID NO: 4 or 6 that binds a CC chemokine; a fragment of a protein of comprising SEQ ID NO: 4 or 6, said fragment having an immunizing activity when administered to a mammal; or an active mutant of a protein comprising SEQ ID NO: 4 or 6, in which mutant one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine; and
- x) an active mutant of SEQ ID NO: 4 or 6 in which one or more one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine, wherein the amino acid addition(s), deletion(s), or substitution(s) reduce the immunogenicity of said polypeptide when administered to a mammal;

B) comprising SEQ ID NO: 3;

C) comprising SEQ ID NO: 5; or

D) comprising a nucleic acid molecule capable of hybridization to a nucleic acid molecule comprising SEQ ID NO: 3 or 5 under stringent conditions and which encodes a protein that binds a CC-chemokine..

52 (new). The process according to claim 51, further comprising purifying the protein.

53 (new). The process according to claim 52, further comprising formulating the protein for human administration.

54 (new). The process according to claim 51, further comprising formulating the protein for human administration.

55 (new). A method of regulating an immune or inflammatory response or providing for the treatment or prevention of CC-chemokine related diseases or disorders in an animal or subject in need thereof, comprising administering a therapeutically effective amount of a polypeptide selected from the group consisting of:

- i) a protein comprising an amino acid sequence of rsChBP-1 (SEQ ID NO: 4);
- ii) a protein comprising an amino acid sequence of mature rsChBP-1 (SEQ ID NO: 6);
- iii) a protein encoded by a nucleic acid molecule capable of hybridization to a nucleic acid sequence encoding a protein comprising SEQ ID NO: 4 or 6, under stringent conditions, said nucleic acid molecule encoding a protein that binds a CC-chemokine;
- iv) a protein that binds a CC-chemokine and is at least about 70% identical in amino acid sequence to: a protein comprising an amino acid sequence of rsChBP-1 (SEQ ID NO: 4); a protein comprising an amino acid sequence of mature rsChBP-1 (SEQ ID NO: 6); or a protein encoded by a nucleic acid molecule capable of hybridization to a nucleic acid sequence encoding a protein comprising SEQ ID NO: 4 or 6, under stringent conditions;
- v) a fragment of a protein of i), ii), iii), or iv), said fragment binding a CC-chemokine;
- vi) a fragment of a protein of i), ii), iii), or iv), said fragment having an immunomodulatory activity;
- vii) a fragment of a protein of comprising SEQ ID NO: 4 or 6, said fragment having an immunizing activity when administered to a mammal;

- viii) an active mutant of a protein comprising SEQ ID NO: 4 or 6, in which mutant one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine;
- ix) a fusion protein comprising one or more amino acid sequences chosen from: an extracellular domain of a membrane-bound protein, an immunoglobulin constant region, a multimerization domain, a heterodimeric protein hormone, a signal peptide, an export signal, or a tag sequence operably linked to: a polypeptide comprising SEQ ID NO: 4 or SEQ ID NO: 6; a fragment of SEQ ID NO: 4 or 6 that binds a CC chemokine; a fragment of a protein of comprising SEQ ID NO: 4 or 6, said fragment having an immunizing activity when administered to a mammal; or an active mutant of a protein comprising SEQ ID NO: 4 or 6, in which mutant one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine; and
- x) an active mutant of SEQ ID NO: 4 or 6 in which one or more one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine, wherein the amino acid addition(s), deletion(s), or substitution(s) reduce the immunogenicity of said polypeptide when administered to a mammal.

56 (new). The method according to claim 55, wherein the disorder is an inflammatory disease, an autoimmune disease, an immune disease, an infection, an allergic disease, a cardiovascular disease, a metabolic disease, a gastrointestinal disease, a neurological disease, sepsis, a disease related to transplant rejection, or a fibrotic disease.

57 (new). The method according to claim 55, wherein the CC-chemokine is CCL5 / RANTES, CCL3 / MIP-1 alpha, or CCL2 / MCP-1.

58 (new). The method according to claim 55, wherein said method immunizes an animal against a blood-feeding ectoparasite.

59 (new). A method for detecting *in vitro* or *in vivo* a CC-chemokine or an analogue, a CC-chemokine binding protein or a receptor, the interaction of CC-chemokine and a CC-chemokine binding protein, or antagonists or agonists of said interaction, wherein said method comprises contacting a sample with a compound selected from the group consisting of:

- a) an isolated polypeptide selected from the group consisting of:
  - i) a protein comprising an amino acid sequence of rsChBP-1 (SEQ ID NO: 4);
  - ii) a protein comprising an amino acid sequence of mature rsChBP-1 (SEQ ID NO: 6);
  - iii) a protein encoded by a nucleic acid molecule capable of hybridization to a nucleic acid sequence encoding a protein comprising SEQ ID NO: 4 or 6, under stringent conditions, said nucleic acid molecule encoding a protein that binds a CC-chemokine;
  - iv) a protein that binds a CC-chemokine and is at least about 70% identical in amino acid sequence to: a protein comprising an amino acid sequence of rsChBP-1 (SEQ ID NO: 4); a protein comprising an amino acid sequence of mature rsChBP-1 (SEQ ID NO: 6); or a protein encoded by a nucleic acid molecule capable of hybridization to a nucleic acid sequence encoding a protein comprising SEQ ID NO: 4 or 6, under stringent conditions;
  - v) a fragment of a protein of i), ii), iii), or iv), said fragment binding a CC-chemokine;
  - vi) a fragment of a protein of i), ii), iii), or iv), said fragment having an immunomodulatory activity;
  - vii) a fragment of a protein comprising SEQ ID NO: 4 or 6, said fragment having an immunizing activity when administered to a mammal;
  - viii) an active mutant of a protein comprising SEQ ID NO: 4 or 6, in which mutant one or more amino acid residues have been added,

deleted, or substituted and which mutant binds a CC-chemokine;

ix) a fusion protein comprising one or more amino acid sequences chosen from: an extracellular domain of a membrane-bound protein, an immunoglobulin constant region, a multimerization domain, a heterodimeric protein hormone, a signal peptide, an export signal, or a tag sequence operably linked to: a polypeptide comprising SEQ ID NO: 4 or SEQ ID NO: 6; a fragment of SEQ ID NO: 4 or 6 that binds a CC chemokine; a fragment of a protein of comprising SEQ ID NO: 4 or 6, said fragment having an immunizing activity when administered to a mammal; or an active mutant of a protein comprising SEQ ID NO: 4 or 6, in which mutant one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine; and

x) an active mutant of SEQ ID NO: 4 or 6 in which one or more one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine, wherein the amino acid addition(s), deletion(s), or substitution(s) reduce the immunogenicity of said polypeptide when administered to a mammal;

b) an isolated polynucleotide encoding:

A) encoding an isolated polypeptide selected from the group consisting of:

i) a protein comprising an amino acid sequence of rsChBP-1 (SEQ ID NO: 4);

ii) a protein comprising an amino acid sequence of mature rsChBP-1 (SEQ ID NO: 6);

iii) a protein encoded by a nucleic acid molecule capable of hybridization to a nucleic acid sequence encoding a protein comprising SEQ ID NO: 4 or 6, under stringent conditions, said nucleic acid molecule encoding a protein that binds a CC-chemokine;

- iv) a protein that binds a CC-chemokine and is at least about 70% identical in amino acid sequence to: a protein comprising an amino acid sequence of rsChBP-1 (SEQ ID NO: 4); a protein comprising an amino acid sequence of mature rsChBP-1 (SEQ ID NO: 6); or a protein encoded by a nucleic acid molecule capable of hybridization to a nucleic acid sequence encoding a protein comprising SEQ ID NO: 4 or 6, under stringent conditions;
- v) a fragment of a protein of i), ii), iii), or iv), said fragment binding a CC-chemokine;
- vi) a fragment of a protein of i), ii), iii), or iv), said fragment having an immunomodulatory activity;
- vii) a fragment of a protein of comprising SEQ ID NO: 4 or 6, said fragment having an immunizing activity when administered to a mammal;
- viii) an active mutant of a protein comprising SEQ ID NO: 4 or 6, in which mutant one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine;
- ix) a fusion protein comprising one or more amino acid sequences chosen from: an extracellular domain of a membrane-bound protein, an immunoglobulin constant region, a multimerization domain, a heterodimeric protein hormone, a signal peptide, an export signal, or a tag sequence operably linked to: a polypeptide comprising SEQ ID NO: 4 or SEQ ID NO: 6; a fragment of SEQ ID NO: 4 or 6 that binds a CC chemokine; a fragment of a protein of comprising SEQ ID NO: 4 or 6, said fragment having an immunizing activity when administered to a mammal; or an active mutant of a protein comprising SEQ ID NO: 4 or 6, in which mutant one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine; and

- x) an active mutant of SEQ ID NO: 4 or 6 in which one or more one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine, wherein the amino acid addition(s), deletion(s), or substitution(s) reduce the immunogenicity of said polypeptide when administered to a mammal;
- B) comprising SEQ ID NO: 3;
- C) comprising SEQ ID NO: 5;
- D) comprising a nucleic acid molecule capable of hybridization to a nucleic acid molecule comprising SEQ ID NO: 3 or 5 under stringent conditions and which encodes a protein that binds a CC-chemokine; or
- E) comprising an oligonucleotide fragment of a nucleic acid according A), B), C), or D), wherein said oligonucleotide is selected from the group consisting of oligonucleotides of at least about 20 nucleotides in length, oligonucleotides of at least about 30 nucleotides in length, and oligonucleotides of at least about 50 nucleotides in length; or

c) an isolated antibody that binds to a isolated polypeptide selected from the group consisting of:

- i) a protein comprising an amino acid sequence of rsChBP-1 (SEQ ID NO: 4);
- ii) a protein comprising an amino acid sequence of mature rsChBP-1 (SEQ ID NO: 6);
- iii) a protein encoded by a nucleic acid molecule capable of hybridization to a nucleic acid sequence encoding a protein comprising SEQ ID NO: 4 or 6, under stringent conditions, said nucleic acid molecule encoding a protein that binds a CC-chemokine;
- iv) a protein that binds a CC-chemokine and is at least about 70% identical in amino acid sequence to: a protein comprising an amino acid sequence of rsChBP-1 (SEQ ID NO: 4); a protein comprising an amino acid sequence of mature rsChBP-1 (SEQ ID NO: 6); or a

protein encoded by a nucleic acid molecule capable of hybridization to a nucleic acid sequence encoding a protein comprising SEQ ID NO: 4 or 6, under stringent conditions;

- v) a fragment of a protein of i), ii), iii), or iv), said fragment binding a CC-chemokine;
- vi) a fragment of a protein of i), ii), iii), or iv), said fragment having an immunomodulatory activity;
- vii) a fragment of a protein of comprising SEQ ID NO: 4 or 6, said fragment having an immunizing activity when administered to a mammal;
- viii) an active mutant of a protein comprising SEQ ID NO: 4 or 6, in which mutant one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine;
- ix) a fusion protein comprising one or more amino acid sequences chosen from: an extracellular domain of a membrane-bound protein, an immunoglobulin constant region, a multimerization domain, a heterodimeric protein hormone, a signal peptide, an export signal, or a tag sequence operably linked to: a polypeptide comprising SEQ ID NO: 4 or SEQ ID NO: 6; a fragment of SEQ ID NO: 4 or 6 that binds a CC chemokine; a fragment of a protein of comprising SEQ ID NO: 4 or 6, said fragment having an immunizing activity when administered to a mammal; or an active mutant of a protein comprising SEQ ID NO: 4 or 6, in which mutant one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine; and
- x) an active mutant of SEQ ID NO: 4 or 6 in which one or more one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine, wherein the amino acid

addition(s), deletion(s), or substitution(s) reduce the immunogenicity of said polypeptide when administered to a mammal.